

Fig. 1.

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1 TCCTGCACAG GCAGTGCCTT GAACTGAGACC TTTCAGCTATA GACTACTTT TTTCTTAA GAGAACAAAG GAGAACATT TGATCAAGG
 AGGACGTGTC CGTCACGGAA CTTCACGAAG AAGTCTGG AAAGAAAGT CTGATGAAA AAAAGAAATT CGTCGTTTC CTCTTTAAC AGTAGTTCC
 1 SerCysThrGlySerAlaLeu uLysCysPhe PheArgAspLeuSerSerIleuSerSerLeuSerSerLysAsp

101 ATATCCAGA TTCTTGACAG CATTCTCGTC ATCTCTGAG ACATCACCAT CATTCTACCA TGAGCCGAT TAAGGCTGCTG TGGCACTGGC
 35 IleProAspSerOP*Gln HisSerArg isleuOP*G1 yHISLHS HisLeuArgM etArgGlyMe tlysLeuleu GlyAlaLeuL euAlaLeuAla

201 GGCCCTACTG CAGGGGGCCC TGTCGCTGAA GATGCCAGCC TTCAACATCC AGACATTGG GGAGACCAAG ATGTCCTAATG CCACCTCTGT
 CCGGGATGAC GTCCCCCGCC ACAGGGACTT CTAGCCCTGG AACGTTGAGG TCTGTAAACC CCTCTGGTTC TACAGGTAA GTCGGATGTA
 68 AlaLeuLeuGlyAlaVal alserLeuLysileAlaAla PheAsnAlleu LysLeuLys MetSerAsnLathrLeuVa IserTyrIle

301 GTGCAGATCC TGAGCCGCTA TGACATGCC CTGGTCCAGG AGGTCTAGA CAGGCCACCTG ACTGCCCTGG
 CACGTCTAGG ACTCGGGCAT ACTGTAGCGG GACCAAGGCC TCCAGTCCTCT GTCGGGGGAC TGACGGGACC
 101 ValGlnAlleuSerArgY rasPheAla LeuValGlnG luValArgAs pSerHisLeu ThrAlaValG lylsLeuleu uAspAsnLeu AsnGlnAspAla

401 CACCAAGACAC CTATCACTAC GTGGTCAGTG AGCCACTGGG ACCGAAACAGC TATAAGGAGC CGTACCTGTT CGTGTACAGG CCTGACCC
 GTGGTCGTG GATACTGATG CACCAAGTCAC TCGGTGACCC TGCCCTGTG ATATTCCTCG CGATGGACAA GCACATGTC
 135 ProAspThr TyrHistY ValValSerGluProLeuGlu YArgAsnSer TyrLysGluA rgytyleuPh eValTyArg ProAspGlnV alSerAlaVal

501 GGACAGCTAC TACTACGATG ATGGCTGCGA GCCCTGGGG AACGACACCT TCAACCGAGA GCCAGCCATT GTCAACGCT
 CCTGTCGATG ATGATGCTAC TACCGACGCT TTGCTGTGGA AGTGGCTCT CGTGTGGTAA CAGTCAGGTT ACAGACGCCA
 168 ASPSerY TyTyrAspA spGlycysGlu uProCysGly uProCysGly AsnAspThrP heAsnArgGlu ValArgPheP heSerArgPh ethrGluVal

601 AGGGAGTTG CCATGGTTC CCTGGCATGGC GCCCGGGGG ACCGAGTAGC CGAGATGGAC CCTCTCTATG ACGTCTACT
 TCCCCTCAAAC GTAAACAAGG GGACGTACGC CGGGGGCCCC TGGCTCATGG CCTCTAGCTG CGAGAGATACT CCTACAGGTT
 201 ArgGluPheA IalleValPheoleuHisAlaAlaProGlyA spArgValAlaGluValLeasp AlaleWtyA spValtyLe uAspValGln GluLyStPrgly

701 GCTTGGAGGA CTCATGGTTC ATGGGGACT TCAATGGGG CTGGAGCTAT GTGAGACCTT CCCAGTGGTC
 CGAACCTCCCT GCAGTACAC TACCCGGTGA AGTACGCC GACGTGGATA CACTCTGGGA GGGTCACCGAG TAGGTAGGG
 235 LeuGluAspA ValMetLeu MetGlyAspP heAsnAlaGlu YCysSerYr ValArgProS ergLntPheSerIleArg LeutPheRhs erProThrPhe

801 CCAGTGGCTG ATCCCCGACA GCGCTGACAC CACAGCTACA CCCACGCTACT GTGGCTATGA CAGGATGGT
 GGTCAACGGAC TAGGGGGCTGT CGCGACTGTG GTGTGATGT GCGGATACT GCGGATGCA CACGGATACT
 268 GluTrPheIleProAspS eraLaaSpH rThralalhr ProThrHisC ysAlaTyAs ParGleVal ValAlaGlyM etleuLeuar gGlyAlaVal

901 GTTCCCGACT CGGCTCTTC CTTAACCTC CAGGCTGCC ATTGGCTGAG TGACCAACTG GCCCAAGCCA TCAAGTACAG
 CAAGGGCTGA GCGGAGAAGG GAAATTGAAG GTCCGACGGAA TACGGGACTC ACTGGTGA CGGGTGCGT AGTCACTGGT
 301 ValProAspS eraLeuPheAsnPhe GlnAlaAlaAlaL yrGlyLeuse rAspGlnLeu AlaGlnAlaI leSerAspHI styrProVal GluValMetLeu

1001 TGAAGTGGCC AGGCTCTTC CACACCAAGT GAACTGCAG
 ACTTCACTCG TCGGGAGGG GTGGTGC
 335 LysOP*Al alaProPro HisThrSerO P*ThrAla

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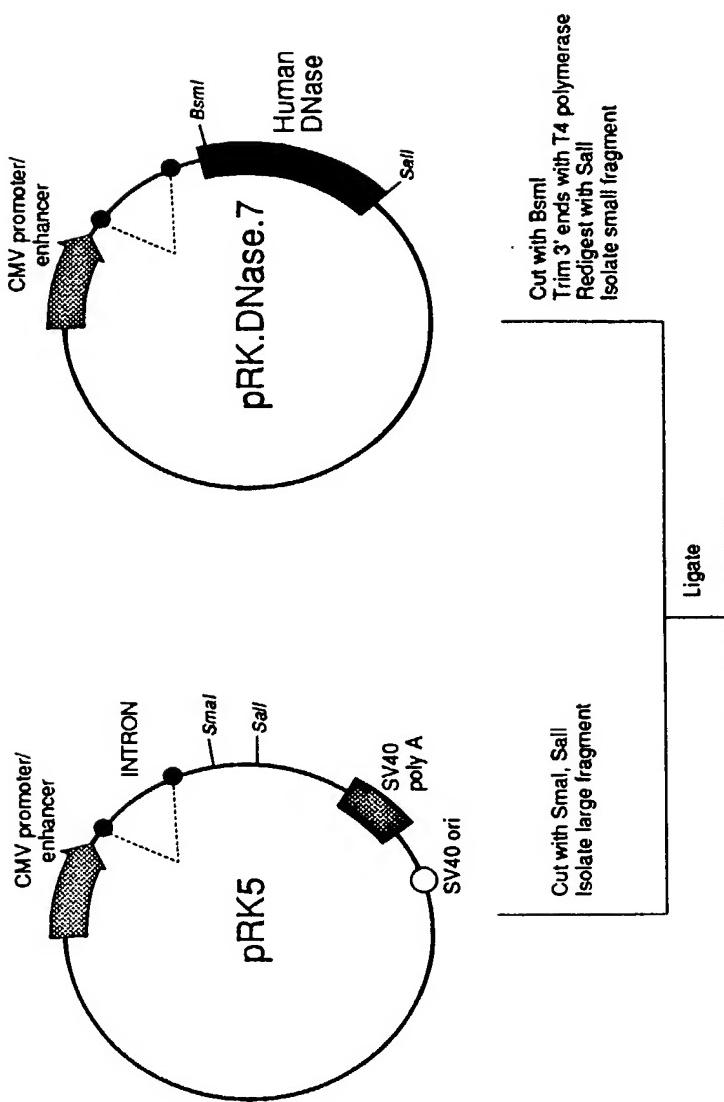


Fig. 2.

	10	20	30	40	50
hDNase	LKIAAFNIQTGETKMSNATLVSYIVQILSRYDIALVQEVRDSHLTAVGK *****.*****.*****.*****.*****.*****.*****.*****.*****				
bDNase	LKIAAFNIRTFGETKMSNATLASYIVRIVRRYDIVLIEQVRDSDLVAVGK 10 20 30 40 50				
hDNase		60 70 80 90 100			
bDNase	LLDNLNQDAPDTYHYVVSEPLGRNSYKERYLFVYRPDQVSAVDSYYYDDG *****.*****.*****.*****.*****.*****.*****.*****.*****				
hDNase	LLDYLNQDDPNTYHYVVSEPLGRNSYKERYLFLFRPNKVSLDTYQYDDG 60 70 80 90 100				
bDNase		110 120 130 140 150			
hDNase	CEPCGNDFNREPAIVRFFSRFTEVREFAIIVPLHAAPGDRVAEIDALYDV *****.*****.*****.*****.*****.*****.*****.*****.*****				
bDNase	CESCGNDSFSREPAAVKFSSHSTKVKEFAIVALHSAPS DAVA EINSLYDV 110 120 130 140 150				
hDNase		160 170 180 190 200			
bDNase	YLDVQEKGLEDVMLMGDFNAGCSYVRPSQWSSIRLWTSPTFQWLIPDSA *****.*****.*****.*****.*****.*****.*****.*****.*****				
bDNase	YLDVQQKWHLNDVMLMGDFNADC SYVTSSQWSSIRLRTSSTFQWLIPDSA 160 170 180 190 200				
hDNase		210 220 230 240 250			
hDNase	DTTATPTHCAYDRIVVAGM LRLGAVV PDSALPFNFQAA YGLSDQLAQAIS *****.*****.*****.*****.*****.*****.*****.*****.*****				
bDNase	DTTATSTNCAYDRIVVAGSLLQSSVVGPSAAPFD FQAA YGLSNEMAL AIS 210 220 230 240 250				
hDNase		260			
hDNase	DHYPVEVMLK *****.*****.*****.*****.*****.*****.*****.*****.*****				
bDNase	DHYPVEVTLT 260				



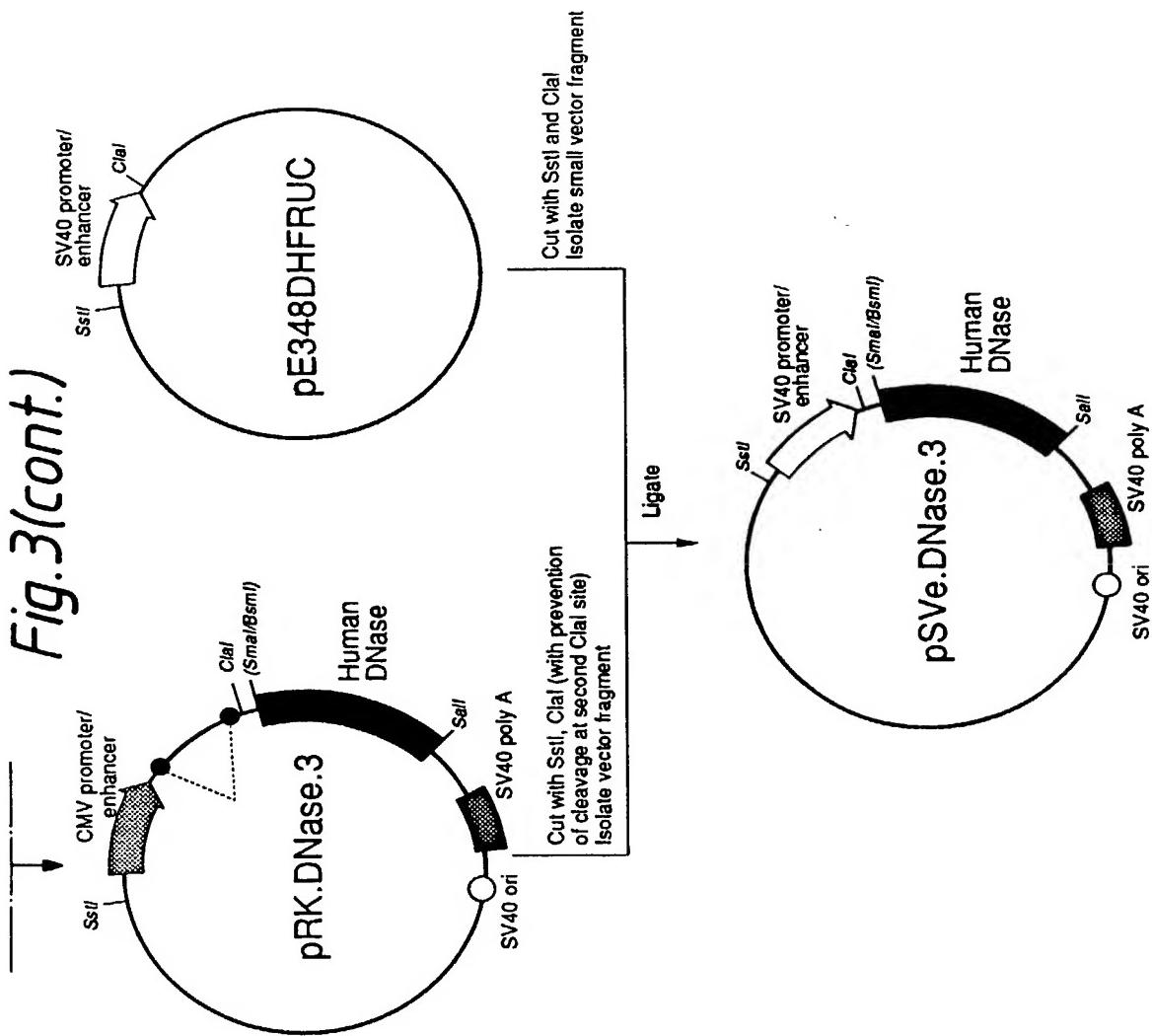
Fig. 3.



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Fig. 3 (cont.)



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Fig. 4.

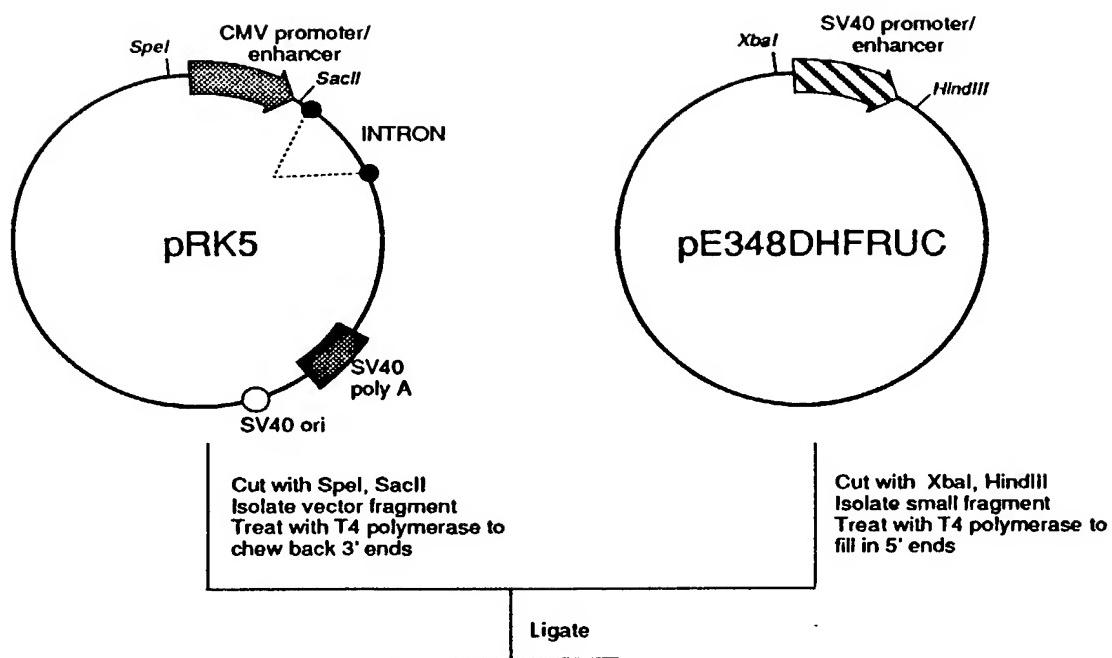
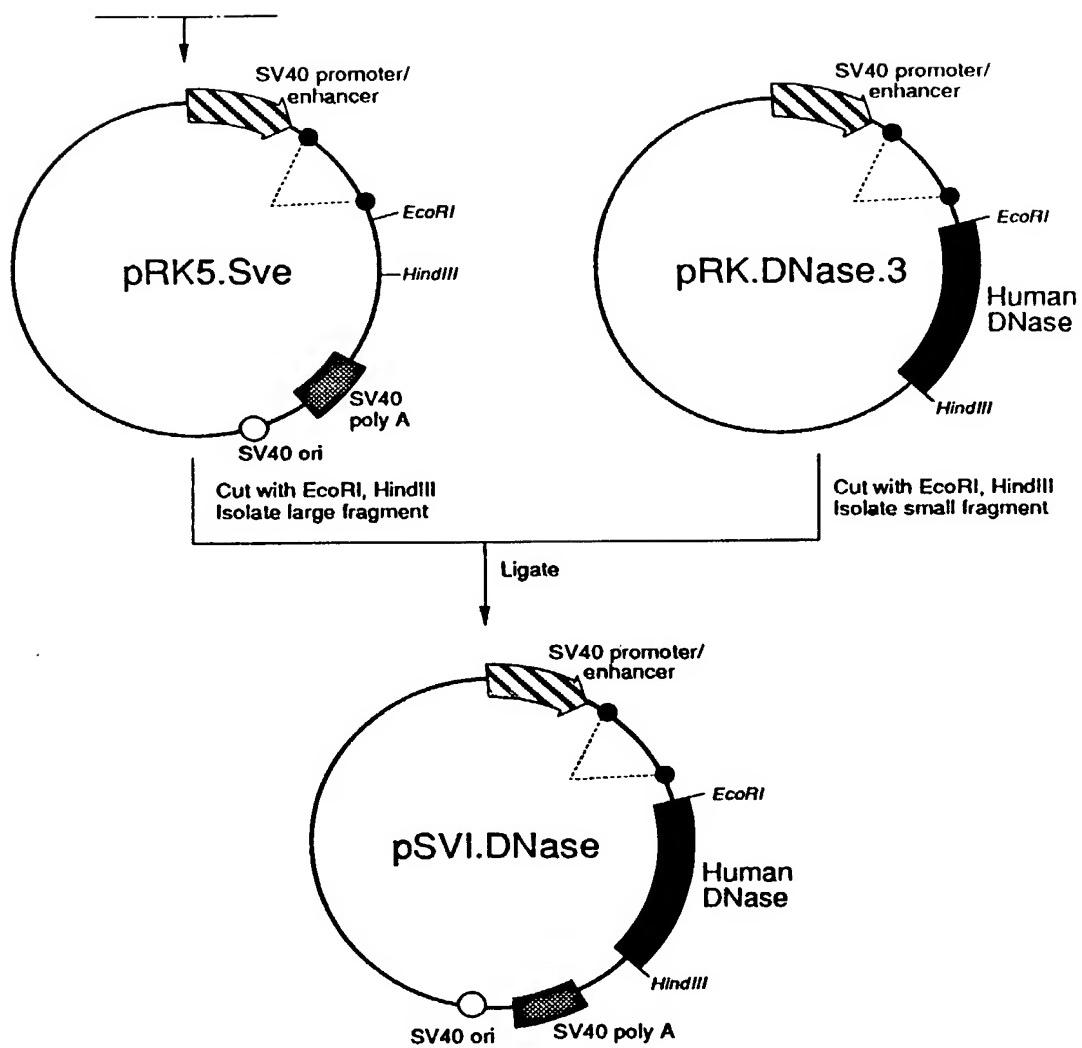


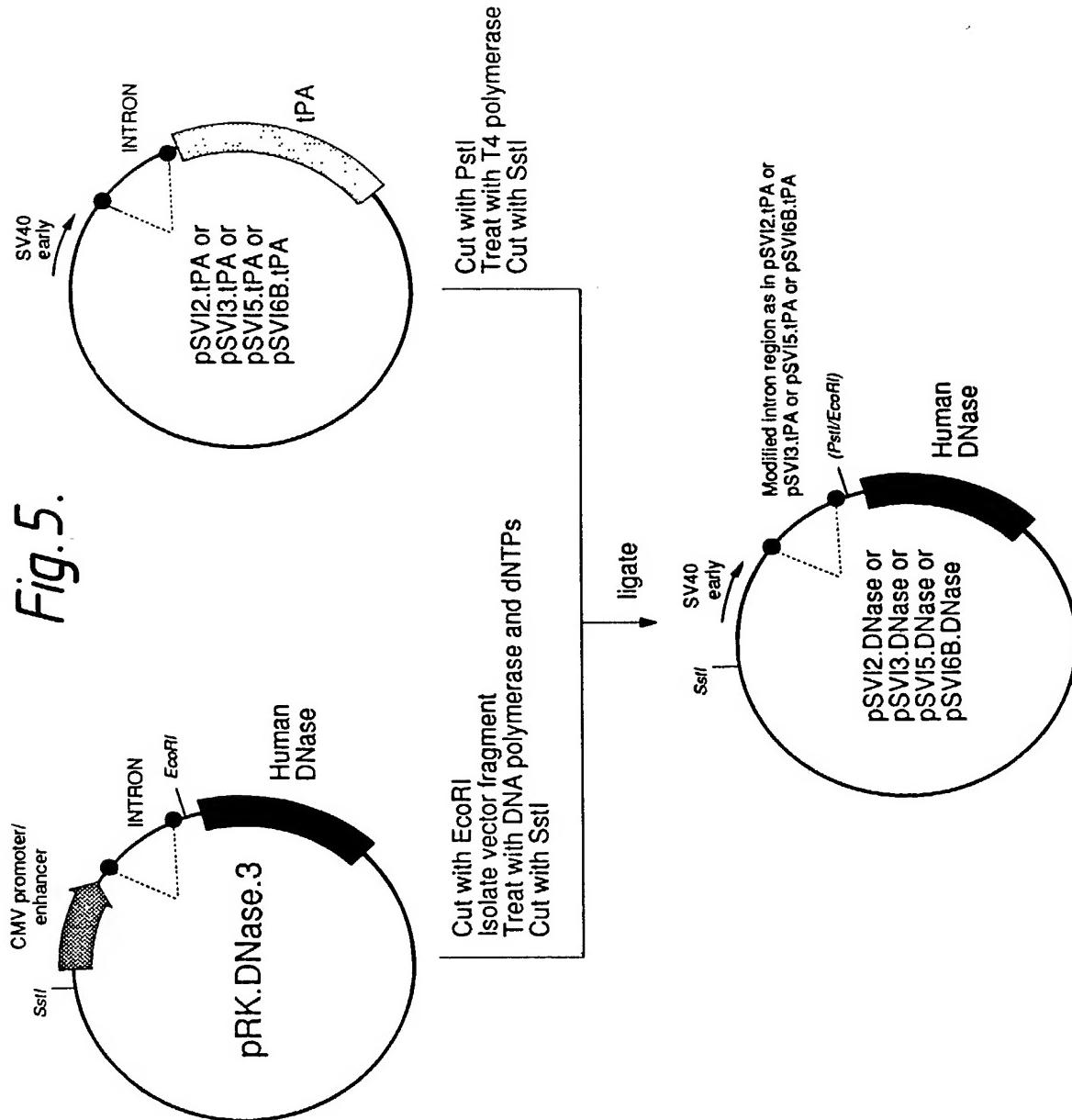
Fig. 4 (cont.)





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Fig. 5.



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Fig. 6.

Fig. 6 (cont.)

sau96I						
avall						
asui						
scrFI						
bsntNI						
mseI	note ATG	hphI	foKI	sp6 RNA start		
501	TAAATACATA ACCCTATGTA TCATACACAT ACGATTAGG TGACACTATA			GAATTAACATC CACTTTCACCT TTCTCTCCAC AGGTGGCCAC	TCCAGGTCC	
	AATTATGTTAATGTTACAT AGTATGTGTA TGCTAAATCC ACTGTGATAT			CTTATTGTAG GTGAACGGGA AAGAGGGTG	TCCACAGGTG	AGGGTCAGG
mluI	aluI	pstI	bsPMI			
	hindIII	fnu4HI				
	delI	bbvI				
				mseI	hgai	
1	Cloning linker					
601	AACTGCACCT CGGTCCTAAG	CCTGGGCTGC	AGGTGCCGT	GAATTAAAGG	GACGCTGTGA	AGCA
	TGACGTTGA GCAAGATT	GAACCCGAGC	TCAGGGCA	CTTAATTC	CTGGACACT	TCGT

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Fig. 7.



Fig. 7 (cont.)

1
501 TAAATACATA ACCCTATGTA TCATACACAT ACGATTAGG TGACACTATA
AATTATGTAT TGGAAATACAT AGTATGTGTA TGCTAAATCC ACTGTGATAT
note ATG
mseI hphI fokI sp6 RNA start
501 TAAATACATA ACCCTATGTA TCATACACAT ACGATTAGG TGACACTATA
AATTATGTAT TGGAAATACAT AGTATGTGTA TGCTAAATCC ACTGTGATAT
GAATAACATC CACTTTGCCT TTCTCTCCAC AGGTGTCCAC TCCCAGGTCC
CTTATTTGAG TGAAACGGG AGAGAGGTG TCCACAGGTG AGGGTCCAGG
bspMI
alul pstI
mnII hindIII fnu4HI bbVI
1 cloning linker
601 AACTGCCACCT CGGTTCCTAAG CTTGGGCTGC AGGTGCCGT GAATTAAAGG GACGCTGTGA AGCA
TGGACGTGGAA GCCAAGAATTC GAACCGGACG TCAAGGGCA CTAAAATTCC CTGCGACACT TCGT

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Fig. 8.

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Fig. 8 (cont.)

sau3AI
mboI
dpnI
aiWI
xhoII
nlaIV
bstYI
bamHI

mseI

bspMI
pstI
fnu4HI
bbVI

1
601

alwI
xhoII
nlaIV
bstYI
bamHI

mseI

pstI
fnu4HI
bbVI

1
601

alwI
avall
asur
scrFI
ecoriI
bstNI

alwI
lariat fokI
removed ATG
consensus
TAAATACATA ACCCTTTGGA TCCTATAGAC TGCATCCAC TTTGCCCTTC TCTCCACAGG TGTCACACTCC CAGGTCCAAC TGCACCTCGG TGCACAGCTT
ATTATGTAT TGGAAAAACT AGGATATCTG ACTCTAGGTG AACGGTGAGG GTCCAGGTG ACGTGGAGCC AAGCTTCGAA

alwI
hindIII
taqI
bstBI
asuII
cloning linker
mseI
mnlI

hgaI

TTAAGGGAC GCTGTGAAGC A
AAATCCCTG CGACACTTCG T

Fig. 9.

aluI
 sstI
 sacI
 hgiJII
 hgiAI
 bsp1286
 banII
 tagI
 1 TTCGAGCTCG CCCGACATTG ATTATTGACT AGAGTCGACA GCTGTGGAAT GTGTGTCAGT
 AAGTCGAGC GGGCTGTAAC TAATAACTGA TCTCAGCTGT CGACACCTTA CACACAGTCA

taqI
 salI
 hindII
 hincII
 accI
 pleI aluI
 hinfl pvuII
 nlaIV
 scrFI
 ecoRII
 bstNI
 nsI
 avaII
 nlaIII
 sphI sfaNI
 nspCIX
 61 TAGGGTGTGG AAAGTCCCCA GGCTCCCCAG CAGGCAGAAG TATGCAAAGC ATGCATCTCA
 ATCCCACACC TTTCAGGGGT CCGAGGGGTC GTCCGCTTTC ATACGTTTCG TACGTAGACT

nlaIV
 scrFI
 ecoRII
 bstNI
 121 ATTAGTCAGC AACCAGGTGT GGAAAGTCCC CAGGCTCCCC AGCAGGCAGA AGTATGCAAA
 TAATCAGTCG TTGGTCCACA CCTTCAGGG GTCCGAGGGG TCGTCCGTCT TCATACGTTT

sfaNI
 nsI
 avaII
 nlaIII
 sphI
 nspCIX
 181 GCATGCATCT CAATTAGTCA GCAACCATAG TCCCGCCCT AACTCCGCC ATCCCGCCCC
 CGTACGTAGA GTTAATCAGT CGTTGGTATC AGGGCGGGGA TTGAGGCCGG TAGGGCGGGG

nlaIII
 styI
 ncoI
 bsRI
 241 TAACTCCGCC CAGTTCCGCC CATTCTCCGC CCCATGGCTG ACTAATTTT TTTATTTATG
 ATTGAGGCCGG GTCAAGGCCGG GTAAGAGGCCGG GGGTACCGAC TGATTAAAAA AAATAAAATAC

fnu4HI
 bgI
 sfiI ddeI
 haeIII haeIII haeIII
 mnII mnII mnII mnII aluI mnII
 301 CAGAGGCCGA GGCCGCCCTCG GCCTCTGAGC TATTCCAGAA GTAGTGAGGA GGCTTTTTG
 GTCTCCGGCT CGGGCGGAGC CGGAGACTCG ATAAGGTCTT CATCACTCCT CCGAAAAAAC

scrFI
 ncII
 mspI
 hpaII
 haeIII
 styI
 avrII
 haeIII
 stuI
 haeI
 mnII
 361 GAGGCCCTAGG CTTTGCAAA AAGCTTATCC GGCCGGGAAC GGTGCATTGG AACGCGGATT
 CTCCGGATCC GAAAACGTTT TTCAAGTAGG CCGGCCCTTG CCACGTAACC TTGCGCCTAA

bstXI
 sau96I
 pleI pleI
 hinfl rsal hinfl haeIII
 U1 matched splice donor asuI styI
 421 CCCCGTGCCA AGAGTCAGGT AAGTACCGCC TATAGAGTCT ATAGGCCAC CCCCTTGGCT
 GGGGCACGGT TCTCAGTCCA TTCAATGGCGG ATATCTCAGA TATCCGGGTG GGGGAACCGA

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Fig. 9 (cont.)

481 sau3AI
 mboI
 dpnI
 alwI
 xbaII
 nlaIV
 bsrYI
 bamHI
 alwI
 removed ATG
 U2 match lariat consensus
sp6 promoter fnu4HI mseI
 bstUI
 promoter aseI
 sau96I
 availI
 asuI
 scrFI
 ecorII
 bstNI
 mnII
 dnuI
 hindIII
 thalI
 fnudII
 bstUI
 dnuI
 hindIII
AGCAATCTTG CGCCGATGTT AATTATGTAT TGGAACACCT AGGATGATTG ATGACTGAAAT
TCGTTAGAAC GCGGCATACAA TTAAATACATA ACCCTTGGAA TCCCTACTAAC TACTGACTTA
541 TTCTCTCCAC AGGTGTCCAC TCCCAGGTCC AACTGCCACCT CGGTTGCGCA
AAGAAAAGGA AAGAGAGGTG TCACACGGTG AGGGTCCAGG TTGACGTGGA GCCAAAGCAGCT
bspMI
PstI
fnu4HI
bbvI
alwI
1
601 AGCTTGGGCT GCAGGTGGCC GTGAAATTAA GGGACGCGTGT GAAGCA
TCGAACCCGA CGTCCAGGG CACTTAATT CCCTGGGACA CTTCTG

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Fig. 10.



Fig. 10 (cont.)



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Fig. 11.

